



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,246	06/27/2003	Warren Lin	26571-501	8562

35437 7590 12/30/2004

MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO  
666 THIRD AVENUE  
NEW YORK, NY 10017

EXAMINER

KING, BRADLEY T

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/608,246

Applicant(s)

LIN, WARREN

Examiner

Bradley T King

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-13, 15-24, 26, 29-38, 41, 44, 47, 50 and 53-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13, 15-24, 26, 29-38, 41, 44, 47, 50 and 53-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's arguments submitted 04/12/2004 that the species are not patentably distinct is persuasive. The restriction requirement has been rescinded.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "surface slot" lacks proper basis in the specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 6-13 15-19, 38, 41, 44, and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 6-8, 11-12, 16-17, 38, 41, 44 and 47 all recite "a vent" of "the vent". This limitation lacks antecedent basis in the specification, nor is it clear what the limitation is intended to convey. Note claim 11 requires a flow channel with a first flow channel opening and a second flow channel opening, the first opening and a vent. With

Art Unit: 3683

both ends of the flow channel and the opening in the slot defined, it is not clear what corresponds to the vent.

Claims 6-8 and 11 recite "the vent". There is insufficient antecedent basis for this limitation in the claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-13, 15-20, 22-24, 26, 29-38, 41, 44, 47, 50, and 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Aydt (US# 6467590).

Aydt discloses all the limitations of the instant claims including: a first and a second annular braking surfaces jointly defining inner and outer circumferential surfaces and a central portion; a first surface slot 10 provided on the first annular braking surface having a length and a width; and a first opening (note that an opening is created between the vanes 7 due to the depth of the groove 10, see figures 17-20) having a size (length or width) smaller than the length of the first surface slot (note the first slot runs the entire width of the braking surface), wherein all or a portion of the first opening being provided within the first slot. See figures 15-16.

Regarding claim 2, see hat portion in figures 1 and 24.

Regarding claim 10, see vanes 7.

Regarding claim 12, note column 4, lines 25-27. The slots can be arranged on both surfaces.

Regarding claims 41, 44 and 47, Aydt inherently discloses the method of providing the above noted features.

Claims 1-4, 6-13, 15-24, 26, 29-38, 41, 44, 47, 50, and 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 1048874.

EP 1048874 discloses all the limitations of the instant claims including: a first 42 and a second 46 annular braking surfaces jointly defining inner and outer circumferential surfaces and a central portion; a first surface slot (50 or 76) provided on the first annular braking surface having a length and a width; and a first opening (note figures 3-5) having a size (length or width) smaller than the length of the first surface slot, wherein all or a portion of the first opening being provided within the first slot.

Regarding claim 2, see hat portion 12.

Regarding claim 10, see vanes 48 or 66.

Regarding claim 12, see figures 5 and 9.

Regarding claim 20, at least a portion of the first slot is substantially straight as broadly recited by the claim language.

Regarding claims 41, 44 and 47, EP 1048874 inherently discloses the method of providing the above noted features.

***Response to Arguments***

Applicant's arguments filed 8/31/2004 have been fully considered but they are not persuasive. It is maintained that the slot of Aydt can be considered a surface slot as broadly defined by the claims. It is also noted that the term "surface slot" lacks antecedent basis in the claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T King whose telephone number is (703) 308-8346. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (703) 308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTK

*Robert A. Siconolfi* 12/27/04  
ROBERT A. SICONOLFI  
PATENT EXAMINER